

**DOCKET NO: UPVG0008-100 (UPVG-0191)  
PATENT APPLICATION****Serial No.: 09/485,421  
Filed: October 5, 2001****IN THE CLAIMS:**

This listing of claims will replace all prior versions, and listings, of claims in the application.

Please amend claims 1, 7, 28, 32, 37, and 43.

**Claim 1 (currently amended)** A conjugated composition comprising a nuclear localization sequence fragment of HIV-1 Vpr (SEQ ID NO:1) comprising amino acid sequence 17-36 and/or amino acid sequence 59-84 conjugated to a therapeutic compound, wherein said therapeutic compound is a nucleic acid molecule.

**Claim 2 (previously presented)** The conjugated composition of claim 1 wherein said fragment of HIV-1 Vpr further comprises a polycationic amino acid sequence.

**Claim 3 (previously presented)** The conjugated composition of claim 1 wherein said nucleic acid molecule is a DNA vaccine plasmid conjugated to said fragment of HIV-1 Vpr by ionic bonds

**Claim 4 (previously presented)** The conjugated composition of claim 1 wherein said fragment of HIV-1 Vpr further comprises a polycationic amino acid sequence and said nucleic acid molecule is conjugated to said polycationic amino acid sequence by ionic bonds.

**Claim 5 (previously presented)** The conjugated composition of claim 1 wherein said nucleic acid molecule is an antisense molecule.

**Claim 6 (previously presented)** The conjugated composition of claim 1 wherein said nucleic acid molecule is an antisense oligonucleotide.

**Claim 7 (currently amended)** A method of delivering a therapeutic compound to the nucleus of a cell comprising the step of:

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contacting said cell with a conjugated compound, wherein said therapeutic compound is conjugated to a nuclear localization sequence fragment of HIV-1 Vpr protein (SEQ ID NO:1) comprising amino acid sequence 17-36 and/or amino acid sequence 59-84 of said HIV-1 Vpr protein; wherein said therapeutic compound is a nucleic acid molecule and wherein said conjugated compound is taken up by said cell and localized to the nucleus of said cell.

**Claim 8 (previously presented)** The method of claim 7 wherein said nucleic acid molecule is a DNA molecule.

**Claim 9 (previously presented)** The method of claim 7 wherein said nucleic acid molecule is a plasmid DNA molecule.

**Claim 10 (previously presented)** The method of claim 7 wherein said nucleic acid molecule is an antisense molecule.

**Claim 11 (previously presented)** The method of claim 7 wherein said nucleic acid molecule is an antisense oligonucleotide.

**Claims 12-27 (canceled)**

**Claim 28 (currently amended)** A conjugated composition comprising a nuclear localization sequence fragment of HIV-1 Vpr (SEQ ID NO:1) consisting essentially of amino acid sequence 17-36 and/or amino acid sequence 59-84 conjugated to a therapeutic compound, wherein said therapeutic compound is a nucleic acid molecule.

**Claim 29 (previously presented)** The conjugated composition of claim 28 wherein said nucleic acid molecule is a DNA vaccine plasmid conjugated to said fragment of HIV-1 Vpr by ionic bonds

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**Claim 30 (previously presented)** The conjugated composition of claim 28 wherein said nucleic acid molecule is an antisense molecule.

**Claim 31 (previously presented)** The conjugated composition of claim 28 wherein said nucleic acid molecule is an antisense oligonucleotide.

**Claim 32 (currently amended)** A method of delivering a therapeutic compound to the nucleus of a cell comprising the step of:

contacting said cell with a conjugated compound, wherein said therapeutic compound is conjugated to a nuclear localization sequence fragment of HIV-1 Vpr protein (SEQ ID NO:1) consisting essentially of amino acid sequence 17-36 and/or amino acid sequence 59-84 of said HIV-1 Vpr protein; wherein said therapeutic compound is a nucleic acid molecule and wherein said conjugated compound is taken up by said cell and localized to the nucleus of said cell.

**Claim 33 (previously presented)** The method of claim 32 wherein said nucleic acid molecule is a DNA molecule.

**Claim 34 (previously presented)** The method of claim 32 wherein said nucleic acid molecule is a plasmid DNA molecule.

**Claim 35 (previously presented)** The method of claim 32 wherein said nucleic acid molecule is an antisense molecule.

**Claim 36 (previously presented)** The method of claim 32 wherein said nucleic acid molecule is an antisense oligonucleotide.

**Claim 37 (currently amended)** A conjugated composition comprising a nuclear localization sequence fragment of HIV-1 Vpr (SEQ ID NO:1) comprising amino acid sequence 17-36 and/or amino acid sequence 59-84 conjugated to a therapeutic compound, wherein said fragment of Vpr is less than 50 amino acids.

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**Claim 38 (previously presented)** The conjugated composition of claim 37 wherein said fragment of HIV-1 Vpr further comprises a polycationic amino acid sequence.

**Claim 39 (previously presented)** The conjugated composition of claim 37 wherein said therapeutic compound is a DNA vaccine plasmid conjugated to said fragment of HIV-1 Vpr by ionic bonds

**Claim 40 (previously presented)** The conjugated composition of claim 37 wherein said fragment of HIV-1 Vpr further comprises a polycationic amino acid sequence and said therapeutic-compound is a nucleic acid molecule is conjugated to said polycationic amino acid sequence by ionic bonds.

**Claim 41 (previously presented)** The conjugated composition of claim 37 wherein said therapeutic compound is an antisense molecule.

**Claim 42 (previously presented)** The conjugated composition of claim 37 wherein said therapeutic compound is an antisense oligonucleotide.

**Claim 43 (currently amended)** A method of delivering a therapeutic compound to the nucleus of a cell comprising the step of:

contacting said cell with a conjugated compound, wherein said therapeutic compound is conjugated to a nuclear localization sequence fragment of HIV-1 Vpr protein (SEQ ID NO:1) comprising amino acid sequence 17-36 and/or amino acid sequence 59-84 of said HIV-1 Vpr protein; wherein said fragment of Vpr is less than 50 amino and wherein said conjugated compound is taken up by said cell and localized to the nucleus of said cell.

**Claim 44 (previously presented)** The method of claim 43 wherein said therapeutic compound is a DNA molecule.

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**Claim 45 (previously presented)** The method of claim 43 wherein said therapeutic compound is a plasmid DNA molecule.

**Claim 46 (previously presented)** The method of claim 43 wherein said therapeutic compound is an antisense molecule.

**Claim 47 (previously presented)** The method of claim 43 wherein said therapeutic compound is an antisense oligonucleotide.